

Moblin Overview and Collaboration Summit Report about Moblin



moblin.org / MIRACLE LINUX CORPORATION

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<http://moblin.org>, <http://moblin.jp>

About me

- Mitsutaka Amano
- Joined to moblin.org about 1 year ago.
 - A maintainer of Moblin Image Creator from June 5th of 2008.
 - Technical support and discussion on Moblin ML.
- I work for MIRACLE LINUX CORPORATION.
 - Develop and Support the Linux OS for Intel(R) Atom(TM) Processor board.
 - Also for the ThinClient OS.



Agenda

- Moblin Overview
- Pickups from LFCS
 - librest, mojito(Integrate web service)
 - Connection Manager(connman)
 - Clutter(3D User Interface API)
 - Moblin SDK(MIC2, Projgen)
- In the future...
- Articles in Japan





Moblin Overview

What is moblin.org?

moblin.org



- The Open Source Software what is promoting a mobile linux platform.
- moblin.org is focused on Mobile Internet Device(MID), Netbook, In-Vehicle Infotainment(IVI) and embedded board.





History of Moblin

- Jul 2007: Opened moblin.org.



Jul 2007: Started to development Moblin v1(based on deb).



Aug 2008: Started to development Moblin v2(based on RPM).

- 01/24/2009: Moblin v2 Alpha1
- 03/17/2009: Moblin v2 Alpha2
- 05/20/2009: Moblin v2 Beta for Netbook, Nettop

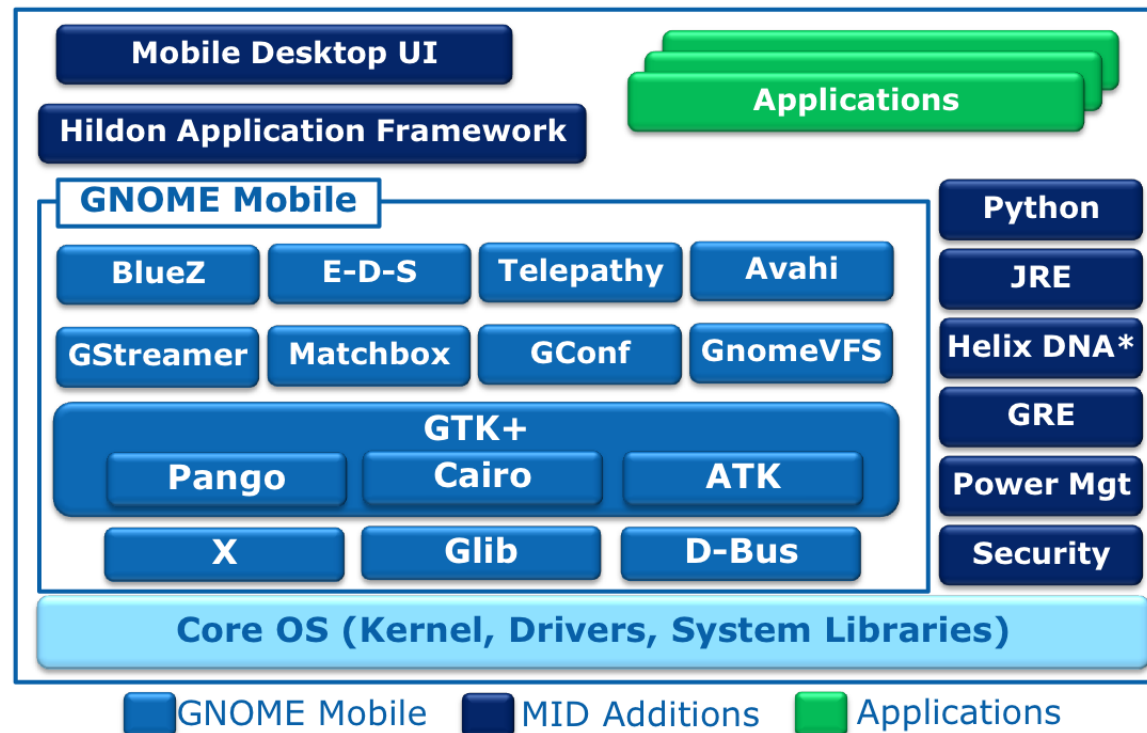
- Apr 2009: Linux Foundation to Host Moblin Project.



Moblin v1 (an old story)

Dev Environment

Moblin Stack Overview



Based on GNOME* Mobile and Embedded Architecture

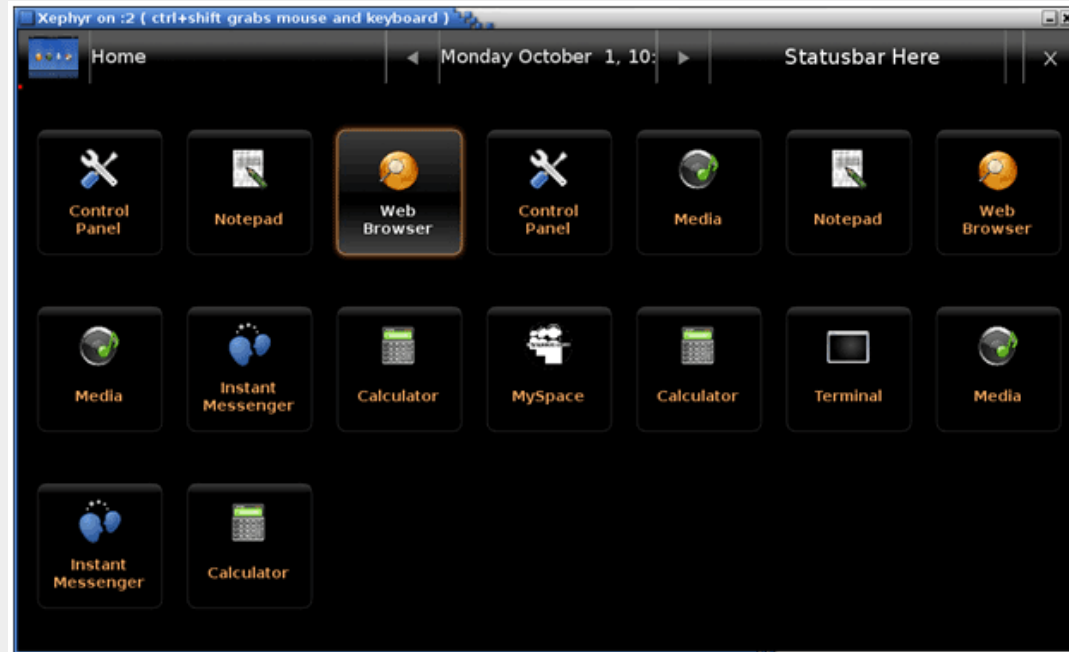
- Plus additional services and components for MIDs

Hildon Application Framework for consistent app look and feel

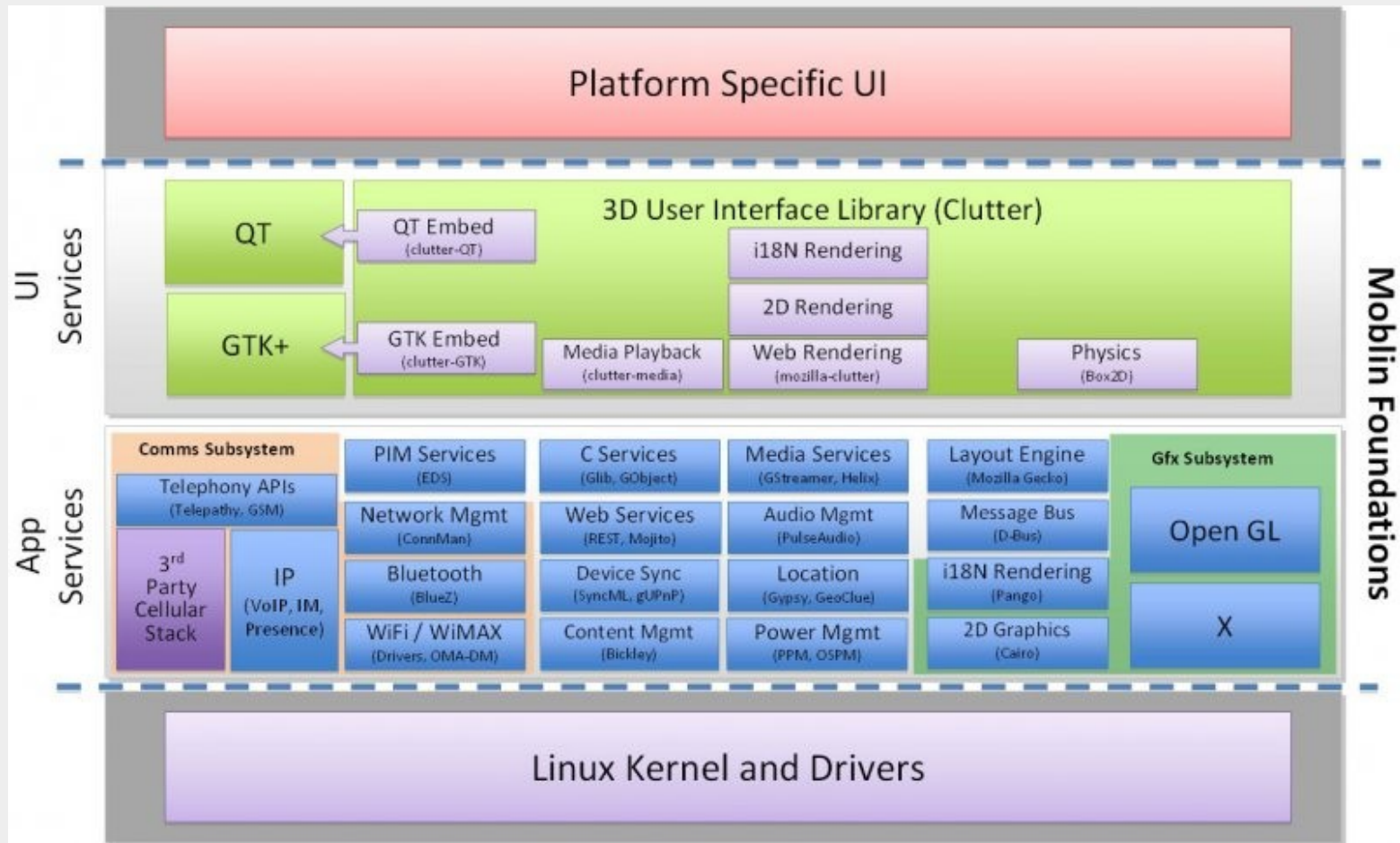


Moblin v1(an old story)

- kernel 2.6.24
 - Applied Poulsbo(US15W) patches
- X server 1.4
- Mesa 7.0.3
- Python 2.4
- GCC 4.2.3
- Based on Ubuntu 8.04



Moblin v2(current)



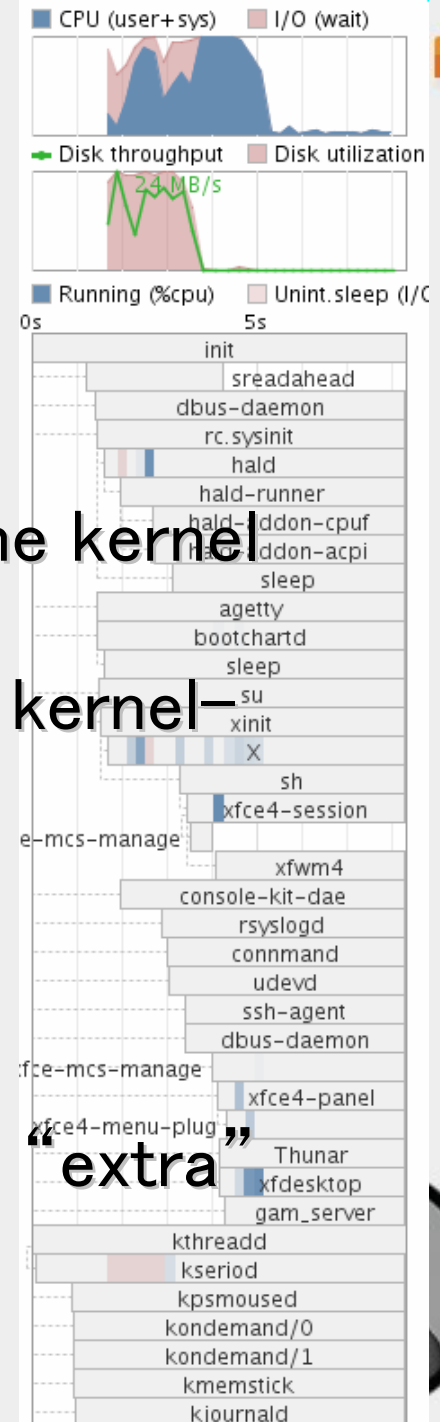
Moblin v2(current)

- kernel 2.6.29
 - CONFIG_FASTBOOT=y
- X server 1.6
- Mesa 7.3
- Clutter 1.0
- Python 2.6
- GCC 4.3.3
- RPM 4.6



Fast boot

- sreadahead optimized for SSDs
- kernel
 - All system components built into the kernel image
 - kernel-netbook-~.moblin2.i586.rpm, kernel-menlow... etc
 - Asynchronous initialization
- No initrd, No Boot Splash
- Sysvinit, not upstart
- xorg-x11-drv-intel is trimmed various delays





Other services

- Bugzilla: bugzilla.moblin.org
- Git: git.moblin.org
- Mailing List: moblin.org/community/mailling-lists
– dev@lists.moblin.org
- IRC: [#moblin](http://irc.freenode.org) on irc.freenode.org

The screenshot shows the moblin.org homepage. At the top left is the moblin.org logo with the tagline 'A LINUX FOUNDATION PROJECT'. To the right is a search bar and a user greeting 'Hello, Mitsutaka Amano' with a 'Log out' link. Below the header is a navigation menu with links: Home, Projects, Downloads, Documentation, Community, and About Moblin. The main content area is divided into two columns. The left column has a section titled 'CREATE THE MOBILE INTERNET FUTURE?' with a brief description of Moblin as an open source project for Linux-based mobile devices. Below this is a 'RECENT BLOGS' section listing several articles. The right column is titled 'Moblin Source' and 'Moblin GIT Software Repositories'. It contains a table with two columns: 'Name' and 'Description'. The table lists various repositories such as 'aplicia', 'anierley', 'bickley', 'blaho', 'bltk', 'bognor-regis', 'carriack-rig', 'carriack', 'commman-gnome', 'commman', 'corewatcher', 'dalston', 'dbus_wimaxapi', 'fastint', 'gnome-control-center', 'hormsey', 'libocse', 'librest', 'libsynthesis', 'moblin-gtk-engine', 'moblin-icon-theme', 'moblin-image-creator-2', 'moblin-image-creator', 'moblin-menus', and 'moblin-session'. Each repository has a brief description of its purpose.

The screenshot shows the Moblin Bugzilla main page. At the top is the 'Moblin Bugzilla - Main Page' header with a search bar and links for 'Home', 'New', 'Search', 'Reports', 'Preferences', and 'Log out'. Below the header is a welcome message and a brief explanation of the bug reporting process. The page is divided into several sections: 'Moblin distribution' with links for reporting bugs, 'Project related bugs' with a link for reporting bugs, and 'Most common actions' with links for searching existing bug reports, entering a new bug report, and creating a new bug report. There is also a section for 'Add to Sidebar' and 'Install the Quick Search plugin'. At the bottom, there is a search bar and a 'Save Searches' link.

Pickups from LFCS



Session 1st day

- Moblin 2: State of the Union
- Imad Sousou
 - Director of Open Source Technology Center, SSG, Intel Corporation
- <http://video.linuxfoundation.org/video/1382>
- Introduction of Moblin



Session 2nd day

- Introduction: Dirk Hohndel
- Moblin Overview: Paul Cooper
- Porting to Moblin 2.0 and Beyond: Rob Bradford
- Connection Manager: Marcel Holtmann
- Clutter Tutorial: Emmanuele Bassi
- Moblin SDK: Bob Spencer
- Cooking with Moblin Core Technologies: Rob Bradford



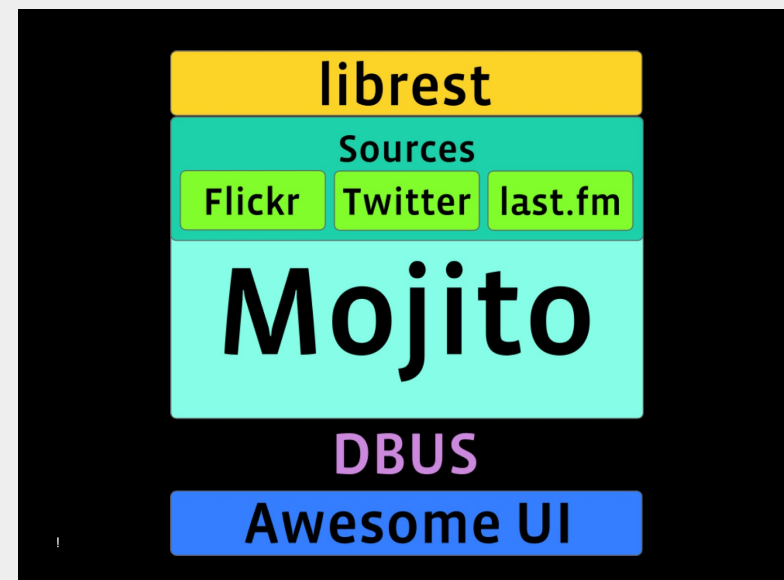
F2F

moblin.org



librest, mojito

- Integrate the social networking service and GUI apps
- Mojito can fetch from Flickr, Last.fm, and Twitter.

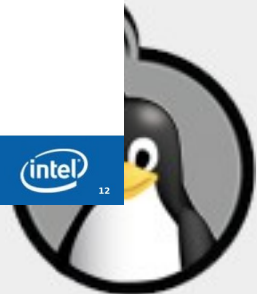
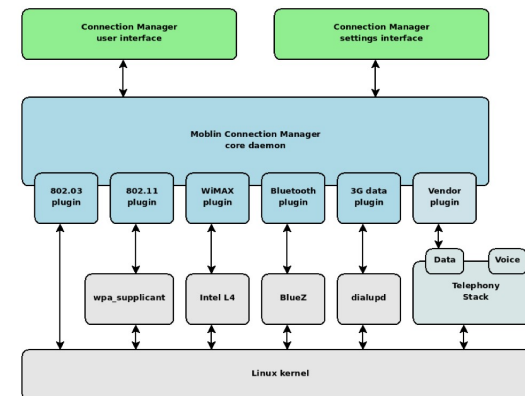


Connection Manager

- New network manager for mobile systems
- Pointed out existing Network Manager is...
 - Not easy to extend
 - Patched by Linux distributions
 - too much GNOME like source code
- Starting from scratch as one of the Moblin projects
- Expandable via plugins
- Ready for embedded usage
 - Fast network connection
 - Internal DNS

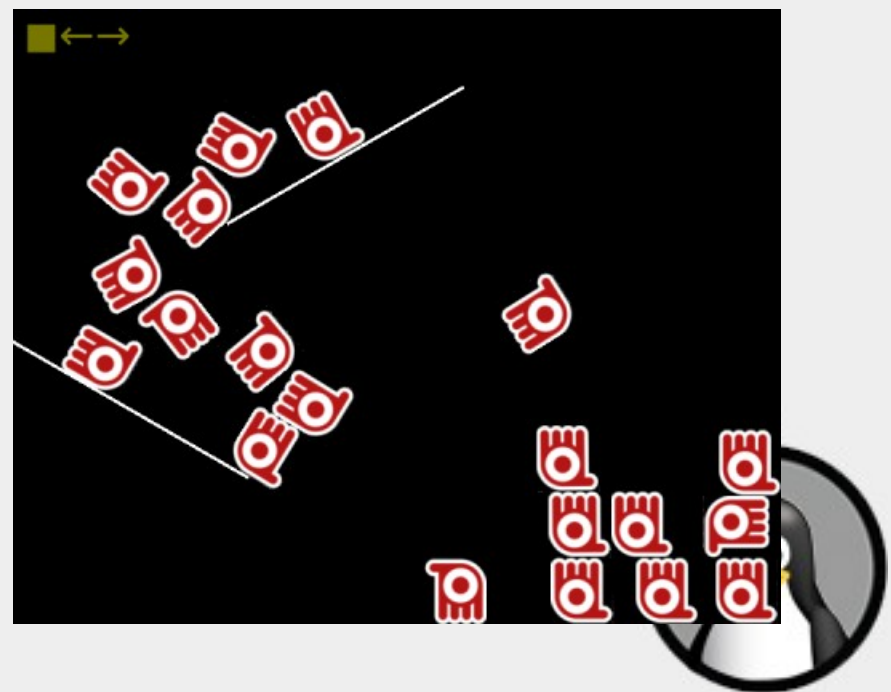


Support multiple technologies



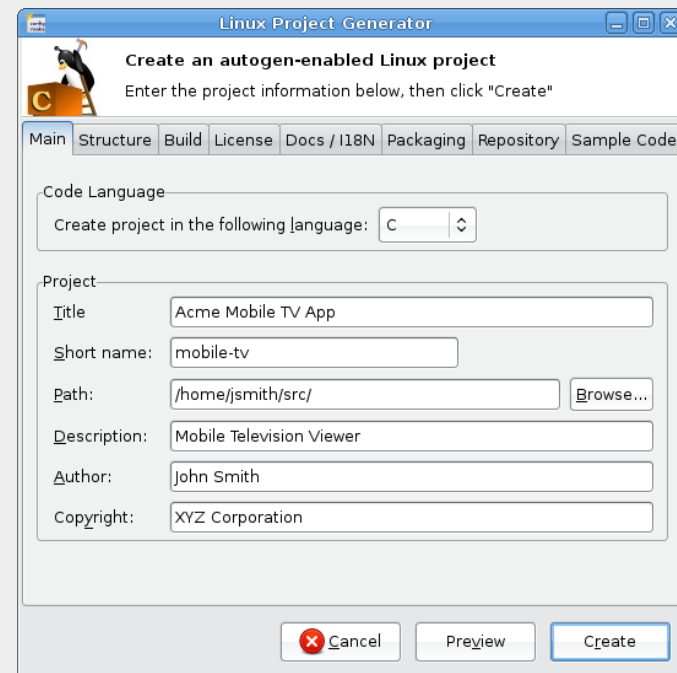
Clutter

- 3D User Interface Library
- Integration with other libraries
 - clutter-qt, clutter-gtk, clutter-media, mozilla-clutter, clutter-box2d(physics)
- Fast and visually rich interfaces, 3D effects and animations
- Developed in C with bindings for Python, Perl, C#



Moblin SDK

- Development Environment
 - KVM, VMWare, FS images
- Tools
 - Moblin Image Creator 2
 - Linux Project Generator(projgen)
- Documentation
 - Developer Guides
 - API Refereneces





In the future...

In the future...

- Moblin v2 GA for Netbook, Nettop('09/Q3)
- Moblin v2 for MID('10/Q1)
- Moblin v2 for the next generation of Netbook, Nettop...?
- Next version of Moblin...?





Articles in Japan

Articles in Japan

moblin.org



- 日経Linux 2008年9月号 (Moblin 1.0)
 - AtomでモバイルLinuxに挑戦
- 日経Linux 2009年7月号より連載予定
 - Moblinの概要、イメージの作り方等



- ITPro LFCSS現地リポート
 - MicrosoftもSunも実はみんな仲良し？
 - Moblin普及にかけるIntelの“本気度”を見た
 - 地球にやさしい「グリーンLinux」は実地検証のフェーズに移行
 - Linuxの明日は晴れか曇りか？「Linux天気予報」セッションが開催





Web sites: moblin.org / moblin.jp



Q&A

Thank you!

